

REMARKS

Claims 1-25 are pending.

Claims 20-22 stand withdrawn.

Claims 1-19 and 22-25 stand rejected.

Claim 5 is rejected under 35 U.S.C. 112, second paragraph.

Claims 1-4, 8-10 and 15 are rejected under 35 U.S.C. 102(b).

Claims 1-4, 6, 11-12 and 22-25 are rejected under 35 U.S.C. 102(b).

Claims 7 and 13-15 are rejected under 35 U.S.C. 103(a).

Claim 5 is rejected under 35 U.S.C. 103(a).

Claims 16-19 are rejected under 35 U.S.C. 103(a).

Claims 1, 5, 16, 19, 22 and 25 are amended.

Claim 6 is cancelled.

Claim 26 is added.

No new matter is added.

Claims 1-5, 7-19 and 22-26 remain in the case for consideration.

Applicant requests reconsideration and allowance of the claims in light of the above amendments and following remarks.

Election/Restrictions

Applicant's election without traverse of Group I, claims 1-19 and 22-25, filed January 20, 2006 is acknowledged.

Claim Rejections – 35 U.S.C. § 112

Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The rejection is respectfully traversed.

Regarding claim 5, the claim has been amended to delete the alcohol containing gas. The applicants believe that this amendment leaves claim 5 in definite form. Therefore, claim 5 is believed to be allowable as distinctly claiming the subject matter of the invention and allowance is respectfully requested.

Claim Rejections – 35 U.S.C. § 102

Claims 1-4, 8-10 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,647,953 to Williams, et al. (“Williams”). The rejections are respectfully traversed.

With respect to amended claim 1, the claim is amended to include the limitation that the deposition chamber does not contain a plasma. This limitation is supported in the specification (see page 9, lines 3-9). Williams specifically teaches that a plasma is maintained in the chamber during cleaning (see col. 3, lines 36-40). Thus, Williams does not disclose each and every element of amended independent claim 1. Therefore, claim 1 is believed to be allowable over Williams and allowance is respectfully requested.

Claims 2-4, 8-10 and 15 depend from claim 1, and for at least the reasons given for claim 1, these claims are believed to be allowable and allowance is respectfully requested.

Claims 1-4, 6, 11-12 and 22-25 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,679,215 to Barnes, et al. (“Barnes”). The rejections are respectfully traversed.

With respect to amended claims 22 and 25, the claims are amended to include the limitation that the deposition chamber does not contain a plasma. This limitation is supported in the specification (see page 9, lines 3-9). Barnes specifically teaches that a plasma is maintained in the chamber during cleaning (see col. 3, lines 39-44). Thus, Barnes does not disclose each and every element of amended independent claims 1, 22, and 25. Therefore, claims 1, 22 and 25 are believed to be allowable over Barnes and allowance is respectfully requested.

Claims 2-4, 11-12 and 23-24 depend from claims 1, 22 and 25 and for at least the reasons given for claims 1, 22 and 25 these claims are believed to be allowable and allowance is respectfully requested.

Claim Rejections – 35 U.S.C. § 103

Claims 7 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barnes. The rejections are respectfully traversed.

Claims 7 and 13-15 depend from amended claim 1, and for at least the reasons given for claim 1, these claims are believed to be allowable and allowance is respectfully requested.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barnes in view of U.S. Patent No. 5,709,757 to Hatano, et al. ("Hatano"). The rejections are respectfully traversed.

With respect to amended claim 5, the claim has been amended to clarify that the nitric acid and/or alcohol containing gas is added to reduce the removal rate of the oxide. This amendment is fully supported in the application as filed at, for example, page 7, lines 17-24. Hatano does not, however, teach that a nitric acid or alcohol containing gas can be used to reduce the removal rate of the oxide. Consequently, claim 5 is believed to be allowable over Barnes and Hatano and allowance is respectfully requested.

Claims 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barnes in view of Williams. The rejections are respectfully traversed.

With respect to amended claims 16 and 19, the claims are amended to include a limitation on the pressure of the deposition chamber of greater than 1 Torr. This limitation is implicitly supported in the specification by the pressure range specified (see page 7, lines 9-16) in combination with the fact that some of the embodiments are non-plasma processes (see page 8, line 29 through page 9, line 9). One of ordinary skill in the art would appreciate that a non-plasma process could be performed at a pressure of greater than 1 Torr, while a plasma process could not. Barnes and Williams specifically teach that the chamber cleaning is done in a plasma environment, which requires a chamber pressure of less than 1 Torr (see Williams col. 3, lines 36-39). Williams and Barnes teach away from the method disclosed in the instant application. Therefore there is no motivation or suggestion for one of ordinary skill in the art to combine Williams and Barnes in the manner posited by the Examiner. Further, the combination of Williams and Barnes does not teach each and every limitation of amended claims 16 and 19, specifically the pressure range greater than 1 Torr. Consequently, claims 16 and 19 are believed to be allowable over Barnes and Williams and allowance is respectfully requested.

Claims 17 and 18 depend from claim 16, and for at least the reasons given for claim 16, these claims are believed to be allowable and allowance is respectfully requested.

New Claim

New claim 26 has been added to distinctly claim some embodiments of the invention. Claim 26 is specifically supported by the specification as filed on page 7, lines 9-16 in conjunction with page 9, lines 3-9. Consequently, no new matter is added by claim 26.

Conclusion

For the foregoing reasons, reconsideration and allowance of claims 1-5, 7-19 and 22-26 of the application as amended is requested. The Examiner is encouraged to telephone the undersigned at (503) 222-3613 if it appears that an interview would be helpful in advancing the case.

Respectfully submitted,

MARGER JOHNSON & McCOLLOM, P.C.



Hosoon Lee
Reg. No. 56,737

MARGER JOHNSON & McCOLLOM, P.C.
210 SW Morrison Street, Suite 400
Portland, OR 97204
503-222-3613
Customer No. 20575